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CDC HEALTH ADVISORY

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Flu Season Begins: Severe Influenza Illness Reported

CDC urges rapid antiviral treatment of very ill and high risk suspect influenza patients without waiting for testing

Summary
Influenza activity is increasing across the country and CDC has received reports of severe influenza illness. Clinicians are reminded to treat suspected influenza in high-risk outpatients, those with progressive disease, and all hospitalized patients with antiviral medications as soon as possible, regardless of negative rapid influenza diagnostic test (RIDT) results and without waiting for RT-PCR testing results. Early antiviral treatment works best, but treatment may offer benefit when started up to 4-5 days after symptom onset in hospitalized patients. Early antiviral treatment can reduce influenza morbidity and mortality.

Since October 2015, CDC has detected co-circulation of influenza A(H3N2), A(H1N1)pdm09, and influenza B viruses. However, H1N1pdm09 viruses have predominated in recent weeks. CDC has received recent reports of severe respiratory illness among young- to middle-aged adults with H1N1pdm09 virus infection, some of whom required intensive care unit (ICU) admission; fatalities have been reported. Some of these patients reportedly tested negative for influenza by RIDT; their influenza diagnosis was made later with molecular assays. Most of these patients were reportedly unvaccinated. H1N1pdm09 virus infection in the past has caused severe illness in some children and young- and middle-aged adults. Clinicians should continue efforts to vaccinate patients this season for as long as influenza viruses are circulating, and promptly start antiviral treatment of severely ill and high-risk patients if influenza is suspected or confirmed.

Recommendations

1. Clinicians should encourage all patients who have not yet received an influenza vaccine this season to be vaccinated against influenza. This recommendation is for patients 6 months of age and older. There are several influenza vaccine options for the 2015-2016 influenza season (see http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6430a3.htm), and all available vaccine formulations this season contain A(H3N2), A(H1N1)pdm09, and B virus strains. CDC does not recommend one influenza vaccine formulation over another.

2. Clinicians should encourage all persons with influenza-like illness who are at high risk for influenza complications (see list below) to seek care promptly to determine if treatment with influenza antiviral medications is warranted.

3. Decisions about starting antiviral treatment should not wait for laboratory confirmation of influenza. Clinicians using RIDTs to inform treatment decisions should use caution in interpreting negative RIDT results. These tests, defined here as rapid antigen detection tests using immunoassays or immunofluorescence assays, have a high potential for false negative results. Antiviral treatment should not be withheld from patients with suspected influenza, even if they test negative by RIDT; initiation of empiric antiviral therapy, if warranted, should not be delayed.

4. CDC guidelines for influenza antiviral use during 2015-16 season are the same as during prior seasons (see http://www.cdc.gov/flu/professionals/antivirals/summary-clinicians.htm).

5. When indicated, antiviral treatment should be started as soon as possible after illness onset, ideally within 48 hours of symptom onset. Clinical benefit is greatest when antiviral treatment is administered early. However, antiviral treatment might still be beneficial in patients with severe, complicated, or progressive illness, and in hospitalized patients and in some outpatients when started after 48 hours of illness onset, as indicated by clinical and observational studies.

6. Treatment with an appropriate neuraminidase inhibitor antiviral drugs (oral oseltamivir, inhaled zanamivir, or intravenous peramivir) is recommended as early as possible for any patient with confirmed or suspected influenza who
   a. is hospitalized;
   b. has severe, complicated, or progressive illness; or
   c. is at higher risk for influenza complications. This list includes:
      - children aged younger than 2 years;
      - adults aged 65 years and older;
      - persons with chronic pulmonary (including asthma), cardiovascular (except hypertension alone), renal, hepatic, hematological (including sickle cell disease), metabolic disorders (including diabetes mellitus), or neurologic and neurodevelopment conditions (including disorders of the brain, spinal cord, peripheral nerve, and muscle such as cerebral palsy, epilepsy [seizure disorders], stroke, intellectual disability [mental retardation], moderate to severe developmental delay, muscular dystrophy, or spinal cord injury);
      - persons with immunosuppression, including that caused by medications or by HIV infection;
      - women who are pregnant or postpartum (within 2 weeks after delivery);
      - persons aged younger than 19 years who are receiving long-term aspirin therapy;
      - American Indians/Alaska Natives;
      - persons who are morbidly obese (i.e., body-mass index is equal to or greater than 40); and
      - residents of nursing homes and other chronic-care facilities.

7. Antiviral treatment can also be considered for suspected or confirmed influenza in previously healthy, symptomatic outpatients not at high risk on the basis of clinical judgment, especially if treatment can be initiated within 48 hours of illness onset.

8. Clinical judgment, on the basis of the patient's disease severity and progression, age, underlying medical conditions, likelihood of influenza, and time since onset of symptoms, is important when making antiviral treatment decisions for outpatients.

9. While influenza vaccination is the best way to prevent influenza, a history of influenza vaccination does not rule out influenza virus infection in an ill patient with clinical signs and symptoms compatible with influenza. Vaccination status should not impede the initiation of prompt antiviral treatment.

Background

Seasonal influenza contributes to substantial morbidity and mortality each year in the United States. In the most recent influenza season—the 2014-2015 season—CDC estimates that there were approximately 19 million influenza-associated medical visits and 970,000 influenza-associated hospitalizations [1]. The spectrum of illness observed thus far during the 2015-2016 season has ranged from mild to severe and is consistent with that of other influenza seasons. Although influenza activity nationally is low compared to this time last season, it is increasing; and some localized areas of the United States are already experiencing high activity. Further increases are expected in the coming weeks. Typically, influenza seasons begin with increases in influenza-like-illness and the percent of respiratory specimens testing positive for influenza in clinical laboratories. Those indicators are rising at this time. Increases in severity indicators tend to lag behind. At this time, national surveillance systems that track

severity are not elevated, but CDC will continue to watch for indications of increased severity from influenza virus infection this season.

Laboratory data so far show that most circulating flu viruses are still like the viruses recommended for the 2015-2016 influenza vaccines. CDC will continue to monitor circulating influenza viruses for changes that might impact vaccine effectiveness and publish these data weekly in FluView (http:/www.cdc.gov/flu/weekly/summary.htm). CDC also is conducting epidemiologic field studies to determine vaccine effectiveness this season.

For more information:

1. Summary of Weekly U.S. Influenza Surveillance Report (http:/www.cdc.gov/flu/weekly/summary.htm)
2. People at High Risk of Developing Flu–Related Complications (http://www.cdc.gov/flu/about/disease/high_risk.htm)
3. Clinical Signs and Symptoms of Influenza (http://www.cdc.gov/flu/professionals/acip/clinical.htm)
4. ACIP Recommendations for the Prevention and Control of Influenza with Vaccines, United States, 2015-16: Summary for Clinicians (http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6430a3.htm)
5. Influenza Antiviral Medications: Summary for Clinicians (http://www.cdc.gov/flu/professionals/antivirals/summary-clinicians.htm)
6. Guidance for Clinicians on the Use of Rapid Influenza Diagnostic Tests (http://www.cdc.gov/flu/professionals/diagnosis/clinician_guidance_ridt.htm)
7. Prevention Strategies for Seasonal Influenza in Healthcare Settings (http://www.cdc.gov/flu/professionals/infectioncontrol/healthcaresettings.htm)
8. Guidance for the Prevention and Control of Influenza in the Peri- and Postpartum Settings (http://www.cdc.gov/flu/professionals/infectioncontrol/peri-post-settings.htm)
9. Interim Guidance for Influenza Outbreak Management in Long-Term Care Facilities (http://www.cdc.gov/flu/professionals/infectioncontrol/ltc-facility-guidance.htm)
10. Patient Education: Influenza Brochures, Fact Sheets, and Posters (http://www.cdc.gov/flu/freeresources/index.htm)

Endnotes

1. Centers for Disease Control and Prevention. Estimated influenza illnesses and hospitalizations averted by influenza vaccination - United States, 2014-15 influenza season. (http://www.cdc.gov/flu/about/disease/2014-15.htm)

The Centers for Disease Control and Prevention (CDC) protects people's health and safety by preventing and controlling diseases and injuries; enhances health decisions by providing credible information on critical health issues; and promotes healthy living through strong partnerships with local, national, and international organizations.

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##This message was distributed to state and local health officers, state and local epidemiologists, state and local laboratory directors, public information officers, HAN coordinators, and clinician organizations##

When to Prescribe a Flu Antiviral

When influenza is spreading widely in the community, prescribe antivirals as shown:*

- **Fever + Cough**

  or

- **Fever + Sore Throat**

  or

- **Influenza otherwise suspected**

+

- **Seriously ill**

  or

- **Age <2 or >65**
- **Pregnant or recently pregnant**
- **Asthma, COPD or chronic lung disorder**
- **Diabetes**
- **Other high-risk conditions:**
  - Chronic heart, kidney, liver or blood disorders
  - Neurologic disorders that cause breathing problems
  - Immunocompromised
  - Age <19 + long-term aspirin therapy
  - Morbid obesity (BMI≥40)

Treat as soon as possible with *oseltamivir*, *peramivir* or *zanamivir*. Do not wait for test results.

For more information, call the Health Department's Provider Access Line at 1-866-692-3641.

NYC Health

*Find a complete list of high-risk conditions and guidance on antiviral use at **nyc.gov/health**.